

Appl. No. : 10/719,909
Filed : November 21, 2003

REMARKS

Claims 1-22 were pending prior to entry of these amendments. Claims 13-22 are canceled. Claims 1 and 10 are amended herein.

Drawings

Figs. 1A-1C have been amended to be designated by the legend –Prior Art–, as suggested by the Examiner. Replacement sheets are attached hereto.

Allowable Subject Matter

Applicant notes with appreciation that Claims 10-12 would be allowable if rewritten in independent form to include all of the limitations of the base claim and any intervening claims. Claim 10 is now allowable as it has been rewritten in independent form to include all of the limitations of the base claim and any intervening claims. Claims 11 and 12, which depend from and include all of the limitations of amended Claim 10, are also allowable.

Rejections Under 35 U.S.C. §103

Claims 1-9 are rejected under 35 U.S.C. §103(a) as being unpatentable over Ohmori et al., U.S. Patent No. 6,506,103. Applicant respectfully disagrees that Claims 1-9 are obvious in view of Ohmori et al. Nevertheless, for clarification, Claim 1 has been amended to recite establishing relative motion between the workpiece and the porous conductive member insulatively coupled to the electrode; and electrochemically removing the overburden conductive material on the surface of the workpiece while establishing relative motion.

The Examiner points to the conductive plastic member 11 of the regulating wheel 10 in Ohmori et al. as the “porous conductive member” recited in Claim 1. However, the Ohmori et al. device does not electrochemically remove the overburden conductive material on the surface of the workpiece. In Ohmori et al., the purpose of the regulating wheel 10 is to maintain a constant coefficient of friction between the regulating wheel 10 and the workpiece 1. See Ohmori et al., at

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Col. 3, line 57 – Col. 4, line 11. The regulating wheel 10 in Ohmori et al. does not remove any material from the workpiece, electrochemically or otherwise.

Applicant respectfully submits that the Ohmori et al. device does not *electrochemically* remove conductive material from a workpiece. The grinding process performed by the Ohmori et al device for material removal is purely a *mechanical* process. In Ohmori et al., material removal from the workpiece is performed by the grinding wheel 4, not the regulating wheel 10. The Ohmori et al. apparatus does perform an electrolytic process, but it is “electrolytic dressing” for the sole purpose of dressing or conditioning the grinding and regulating wheels, not for removing material from the workpiece 1. See Ohmori et al., at Col. 3, lines 49-57 and Col. 4, lines 29-48. As shown in Figure 2, and described in Col 4, line 62 – Col 5, line 8, a potential is applied between the regulating wheel 10 and the electrode 14 while the conductive fluid 8 is supplied between them, to perform “electrolytic dressing” of the regulating wheel 10. As shown in Figure 2 in Ohmori et al., negative electrodes 5, 6 and the conductive fluid are used to perform “electrolytic dressing” of the surface of the grinding wheel 4 while a positive potential is applied to the grinding wheel. Thus, the grinding wheel in Ohmori et al. is configured for *mechanical* removal of material from a workpiece, not *electrochemical* removal, as recited in Claim 1.

Claim 1 is therefore patentable as it is not obvious in view of Ohmori et al. Claims 2-9, which depend from and include all of the limitations of Claim 1, are therefore also patentable. Furthermore, each of the dependent claims recites further distinguishing features of particular utility.

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Conclusion


Applicant respectfully submits that all of the pending claims are patentably distinguishable over the prior art of record. The cited references, either alone or in combination, do not teach or suggest Applicant's claimed invention.

Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Respectfully submitted,

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AMEND
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AMENDMENTS TO THE DRAWINGS

The attached sheets of drawings include changes to Figs. 1A-1C. These sheets, which include Figs. 1A, 1B, 1C, and 2, replace the original sheets including Figs. 1A, 1B, 1C, and 2. In Figs. 1A-1C, the legend –PRIOR ART—has been added.

Attachments: Two Replacement Sheets of Drawings